



**NATIONAL INSTITUTE OF TECHNOLOGY
ROURKELA – 769 008, ODISHA**

Advertised Tender Enquiry

Department: Mechanical Engineering

Tender notification no: - NITR/PW/ME/2020/220

Date: 28/12/2020

To

Bidding through
e-Procurement module of
CPP Portal.

<https://eprocure.gov.in/eprocure/app>

Important Dates

Event	Date	Time
Pre-bid Conference	NA	NA
Last Date of submission of bid	25/01/2021	11:00 AM
Date of opening of techno-commercial bid	27/01/2021	11:00 AM

Dear Sir,

We intend to purchase the commodities specified below and invite quotations in accordance with the terms and conditions detailed in the bid document. If you are interested, kindly send your offer with prices and complete terms within the time mentioned above.

For any query, you may contact:

ATTENTION:
Prof. Suman Ghosh
Department of Mechanical Engineering
National Institute of Technology Rourkela
Rourkela-769 008, Odisha
Phone: 0661-2462531
Mobile: +91 9437809878
E-mail: ghoshsuman2000@gmail.com
ghoshs@nitrkl.ac.in

Yours sincerely,

Name: Prof. Suman Ghosh
Department of Mechanical Engineering
NIT Rourkela

Encl:

- (1) Schedule of requirement, specifications, dates etc.**
- (2) Bid document containing detail terms and conditions.**

1. Schedule of requirements

Item No	DESCRIPTION	Quantity
1	Procurement and installation of a Complete unit of Francis Turbine Test Rig (Detailed specification as per Annexure – II)	1 Unit

2. Specifications and allied Technical Details

As per the specification mentioned in Annexure II

3. Format of Quotation (tick appropriate box)

It is a **two-part** bid with separate techno-commercial and price bids.

4. The bid should be submitted through <https://eprocure.gov.in/eprocure/app>

5. Quotations should be valid for a period of **90 days** from the date of opening of techno-commercial bid.

6. Some important dates:

i. Pre-bid Conference	Date: NA	Time: NA
ii. Last date for submission of Bid:	Date: 25/01/2021	Time: 11:00 AM
iii. Date of opening of Techno-commercial Bid:	Date: 27/01/2021	Time: 11:00 AM

7. Warranty: Comprehensive warranty for 1 year (spares and consumables must be provided).

8. Techno-commercial Bid Evaluation Criteria: As per the detailed equipment technical specifications given in **Annexure–II**. If required, the bidder may be asked to provide clarification regarding the technical aspects.

Other Qualification criteria:

- i. Complete technical specification of the instrument and its necessary parts and accessory items required for running the instrument
- ii. Scanned copy of the technical brochure and website reference of the same must be included in the bid.
- iii. There must be a local maintenance center with the availability of the spares in India. The registered address of the local maintenance center should be provided.
- iv. A declaration from the Principal stating that the spares will be made available for the equipment for at least 5 years from the date of installation.
- v. The average turnover of the bidder in the last 3 Financial Years should be at least Rs. 2.0 crores. Relevant documents to be provided.
- vi. The bidder should have proven track record in Govt. Sector at least for 7 years. POs in favor of the bidder to be provided as proof.
- vii. A duly signed detailed User List (at least 5) with the concerned person's valid contact details, in India where the instruments are still in the operational condition must be provided for each of the instrument.

- viii. Copies of at least 5 POs/installation certificates of similar or higher specifications than the quoted instrument from Govt. organizations/ labs/ institutes should be provided. The POs/installation certificate should not be older than 5 years.
- ix. A copy of the Authorization Certificate issued by the Principal in favour of the Indian agent along with a certified copy of the Agency Agreement between the foreign Principal and Indian agent. Both these certificates must be up-to-date.
- x. In case of imported items, a letter in the official letterhead of the principal declaring the Indian agent as their authorized agency to bid. The letter must contain the official tender enquiry number as depicted in the e-portal, must be included with the technical bid. (This must not be clubbed with Authorization Certificate)
- xi. A duly signed separate compliance sheet of the specification (at every point) mentioned in the technical part along with the deviation (if any). This compliance sheet will not be considered as the technical specification of the instrument.
- xii. Profit and loss statements and balance sheets of the financial year 2018-2019 (as on year ended, i.e., 31.03.2019) must be provided along with the technical bid.
- xiii. Income tax return (ITR) of the assessment year 2018-2019 must be provided along with the technical bid.
- xiv. Dealership Certificate and Proprietary Nature Certificate (If applicable) must be provided along with the technical bid.
- xv. Price should include installation.

9. Financial Bid Evaluation Criteria: The comparison will be made for the award of contract on overall price basis of the Instrument and Comprehensive warranty for 1 year (spares and consumables must be provided).

10.

- a) All prices to be quoted including delivery and installation at NIT Rourkela in INR. The price should include the customs clearance, transportation, and other charges.
- b) **GST:** GST should be charged at 5% against DSIR certificate.
- c) **Customs Clearance :**

NIT will provide necessary documents for concessional customs clearance charges.

11. Tender Cost: Tender cost (Non- refundable) in the shape of Demand Draft for **INR 500/- (Rupees Five Hundred only)** in favor of "Director, NIT Rourkela" Payable at Rourkela from any Scheduled Commercial Bank except Co-operative and Gramin bank. Tender Cost should reach physically through speed post/ register post/courier, containing in an envelope & superscripted with subject, tender reference number addressing to **Registrar, NIT Rourkela-769008, Odisha; on or before 27/01/2021 at 11:00 AM.**

12. Bid Security: It is mandatory to submit the "**Bid Security declaration**" form as mentioned in **Annexure I**, failing which the bid will be summarily rejected.

13. Performance Security: 3 % of the Contract Value should be deposited to the Institute within 15 days from the date of issue of Purchase Order, in shape of Demand Draft (DD)/Bank Guarantee in favor of "Director, NIT Rourkela and payable at Rourkela" from any Scheduled Commercial Bank except Co-operative and Gramin bank. And Performance security should remain valid for a period of 60 days beyond the date of completion of all contractual obligations of the suppliers including warranty obligation.

14. Please send your quotations through <https://eprocure.gov.in/eprocure/app>

15. For technical details, you may contact

Prof. Suman Ghosh

Department of Mechanical Engineering,

National Institute of Technology,

Rourkela - 769 008

Phone: 0661-2462531, Mobile: +91 9437809878

E-mail: ghoshsuman2000@gmail.com

ghoshs@nitrkl.ac.in

NB: Please furnish your Dealership Certificate (must) and Proprietary Nature Certificate (If applicable)



NATIONAL INSTITUTE OF TECHNOLOGY ROURKELA – 769 008, ODISHA

BID DOCUMENT

1. Instructions to the bidders

- 1.1 Bids are invited on behalf of the Director, National Institute of Technology (NIT), Rourkela – 769 008, Odisha, from the intending bidders for supply of the goods/stores/ equipment for the Institute as detailed in the enquiry letter.
- 1.2 The bidders should quote their offer/rates in BOQ in clear terms without ambiguity.
- 1.3 In case of any discrepancy between the rates in figures and that in words, the rate in words will be accepted as correct.
- 1.4 The last date for receipt of the bid is marked in the enquiry.
- 1.5 The Bid should be uploaded in <https://eprocure.gov.in/eprocure/app> Please follow the guidelines of the site.
- 1.6 If a prospective bidder requires any clarification in regard to the bidding documents, he may make a request the concerned officer or faculty member at least 15 days before the deadline for receipt of bids.
- 1.7 Bids received after the deadline of receipt indicated in para 1.4 above, shall not be taken in to consideration.
- 1.8 Each bidder shall submit only one bid. A bidder, who submits more than one bid, shall be disqualified and considered non-responsive.
- 1.9 (In respect of high value plant, machinery etc. of a complex and technical nature). The bids may be submitted in two parts, viz., technical bid and financial bid.
- 1.10 The bidder has to sign in full at all pages of the scanned part of the bidding document. No over-writing in those pages is acceptable.
- 1.11 If any bidder does not fulfil technical specification, his/her eligibility will be cancelled even if his/her price got L1 status.
- 1.12 Bidders registered with any of the following agencies/ bodies as per Public procurement policy for Micro & Small Enterprises (MSE) order 2012 are exempted categories from payment of EMD provided that the registration Certificate issued by any one of these below mentioned agencies must be valid as on close date of tender. Micro small or medium enterprises who have applied for registration or renewal of registration with any of these agencies/bodies but have not obtained the valid Certificate as on close date of tender are not eligible for exemption.
 - i) Khadi and Village Industries Commission (KVIC)
 - ii) National Small Industries Corporation (NSIC)
 - iii) Any other body specified by Ministry of MSME/GOI

2. Conditions of the bid

- 2.1 The rates quoted should preferably be net, inclusive of all taxes and duties, packing, forwarding, freight, Insurance and all other incidental charges. In case these charges are quoted extra in addition to the quoted rates, the amount thereof or Ad Valorem rate must be specified. Packing, forwarding, freight etc., when quotes separately are reimbursable at actuals. If external agencies are employed, their receipts must be enclosed with the invoice.

- 2.2 Duties and Taxes are to be quoted separately. Ad Valorem rates thereof should be clearly indicated with reference to the relevant Acts and Rules.

It may be noted that the Institute is availing custom duty exemption in terms of Notification No. 51/96 – Customs dt. 23.07.1996, Notification No. - 47/2017- Integrated Tax (Rate) dt. 14.11.2017 and Notification No- 45/2017 – Integrated tax (Rate) dt. 14/11/2017 & Notification No. - 45/2017- Central tax (Rate) dt. 14.11.2017, Notification No. - 45/2017- Union Territory Tax (Rate) dt. 14/11/2017 [Vide DSIR, Ministry of Science and Technology, Government of India, Registration No.: TU/V/RG- CDE (227)/2016, dated: 13.11.2018].

- 2.3 The goods are required to be delivered at the indenting Department of NIT, Rourkela, and must be reached within **90 days** from the date of placement of the supply of order under the risk and arrangement of the bidder and offers with delivery beyond the above period shall be treated as unresponsive. In case the delivery time is higher, the same must be mentioned clearly in the quotation.
- 2.4 The bid should remain valid for a period of **90 days** from the date of opening of techno-commercial bid. In case your offer has a different validity period that should be clearly mentioned in the quotation.
- 2.5 Conditional discount, if any, offered by the bidder shall not be considered at the time of evaluation.
- 2.6 The goods offered should strictly conform to the specification and technical details mentioned in **Annexure-II**.
- 2.7 The Institute may like to conduct pre-dispatch inspection of goods, where applicable.
- 2.8 Period of guarantee/warranty, where applicable, should be specified in the bid.
- 2.9 If the successful bidder, on receipt of the supply order, fails to execute the order within the stipulated period, in full or part, it will be open to the Director, NIT Rourkela to recover liquidated damage from the firm at the rate of 1 percent of the value of undelivered goods per month or part thereof, subject to a maximum of 5 percent of the value of undelivered goods. Alternatively, it will also be opened to the Director, to arrange procurement of the required goods from any other source at the risk and expenses of the bidder.
- 2.10 The successful bidder may be required to execute a contract, where applicable.
- 2.11 The bidder has to furnish up to date Income Tax Clearance Certificate along with the bid.
- 2.12 Purchase order / Work order shall be placed on the bidding firm(s). In case of deviation to this, if any, the bidding firm should produce any such sufficient documents/credentials i.e, Agreements, MOUs, Arrangements etc. with the third party/ OEM to satisfy the buyer. A consent letter from the third party/ OEM to that effect must be enclosed along with the bidding documents.
- 2.13 Payment (100 percent) will be made by Account Payee Cheque/Bank Draft, within 30 days from the date of receipt of the goods in good condition or receipt of the bill, commissioning of the equipment, where applicable, whichever is later/latest.
- 2.14 In case of Advance payment, the payment will be made on either in Foreign Demand Draft or Wire Transfer only. The proforma invoice copy need to be sent for advance payment.
- 2.15 State Bank of India is the sole Banking partner for NIT Rourkela for operation of LC (Letter of Credit).
- 2.16 In the event of any dispute arising out of the bid or from the resultant contract, the decision of the Director, NIT, Rourkela shall be final.
- 2.17 The bid document/resultant contract will be interpreted under Indian Laws.

BID SECURITY DECLARATION

Tender Ref. No.: _____ Dated:_____

Tender ID: _____

To

**The Registrar,
National Institute of Technology, Rourkela
Sundargarh, Odisha-769008**

The undersigned, declare that I/We understand that, according to your conditions, bids must be supported by a Bid Securing Declaration. I/We accept that I/We may be disqualified/ suspended from bidding for any tender /contract in your Institute (NIT Rourkela) for a period of Five Years from the date of notification of present tender, if I am /We are in a breach of any obligation under the bid conditions as under, if I/We

- a) Withdraw/modify/amend, impair or derogate the tender/bids, during the period of bid validity specified in the form of Bid; or
- b) having been notified of the acceptance of our Bid by the purchaser during the period of bid validity
 - (i) fail or refuse to execute the contract, if required, or
 - (ii) fail or refuse to furnish the Performance Security, in accordance with the Instructions to Bidders.

I/We understand this Bid Securing Declaration shall cease to be valid if I am/we are not the successful Bidder, upon the earlier of (i) the receipt of your notification of the name of the successful Bidder; or (ii) thirty days after the expiration of the validity of my/our Bid.

Signed: (insert signature of person whose name and capacity are shown) in the capacity of (insert legal capacity of person signing the Bid Securing Declaration)

Name: (insert complete name of person signing the Bid Securing Declaration) Duly authorized to sign the bid for and on behalf of (insert complete name of Bidder)

Dated on _____ day of _____ (insert date of signing) Corporate Seal (where appropriate)

(Note: In case of a Joint Venture, the Bid Securing Declaration must be in the name of all partners to the Joint Venture that submits the bid)

Specifications of the Complete unit of Francis Turbine Test Rig

Technical Specification

The main aim is to effectively understand the performance characteristics of a Francis Turbine Test Rig. The other objective is to effectively understand the construction and operation of a Pelton Wheel Turbine. The turbine should be powered by a centrifugal pump, which should be driven electrically. The turbine output should be measured by a dynamometer. A water tank, piping, and other required accessories must be supplied with the test rig. Self-explanatory operating manuals must be provided with each system. Detailed theory, as well as practical exercises, should be included in the manual.

A compact, comprehensive set of Francis Turbine Test Rig is required for the

1. Study of the construction and operation of a Francis Turbine
2. Determination of constant head characteristics curve
3. Determination of constant speed characteristics curve
4. Determination of constant efficiency curve

The setup must have the following components

1. Francis Turbine unit
2. Centrifugal pump to run the turbine
3. Electrical motor to run the pump
4. Dynamometer unit to measure the turbine output
5. Pressure measurement unit
6. Flow measurement unit
7. Water tank
8. Additional unit for PC Operation of the test rig

Minimum specification:

A Francis turbine test rig of almost 1 HP output is required. Horizontal type Francis turbine of size almost 75 mm, should develop about 1 HP output. It should be made of cast iron spiral casing, bearing housing and aerofoil shaped gunmetal guide vane and gunmetal runner. It should have a transparent outlet pedestal with stainless steel draft tube. It should have the cast iron external bearing pedestal for longer bearing life. It should also have a cast iron base plate and a slotted dead weight for conducting experiments in metric units. Pressure gauge for head measurement should have the facility to measure in meters. A water-cooled cast iron brake drum of 200 mm dia, should be mounted on the main shaft with bearings for the load test. The head of the turbine should be at least 10 meters at the discharge of about 1000 LPM.

The test rig should include a 1 HP supply pump set (of almost 75 mm in size) with a discharge of almost 1000 LPM at 10 meters head for supplying water to the above turbine. The supply pump should operate using 400 volts 3 phase 50 cycles AC mains.

The switch and DOL Starter should be suitable for the above centrifugal pump set and mounted on a panel board.

The complete piping system consisting of pipes, valves, fittings for the test rig should be supplied.

Flow measuring unit should consist of a suitable orifice meter, pressure gauges, and dynamometer unit.

The sump should be made of the fiberglass lined MS, and the size of the sump should be at least 1550 x 950 x 500 mm to store sufficient water for independent circulation through the unit for experimentation. The sump and water supply section should be arranged within the floor space of the main unit.

Rigid MS framework compactly fitted with all the above items as a self-sufficient package unit (suitable for operation without any foundation) should be supplied.

Installation and Training: A 2-day installation post-training should be provided by the bidder.

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